



240 320 AATTAGATTCCACTAGTACGCCATTGTAGAATCAAGGCCAAGATATGAACAACCCATAAGTAACGGCGATCCTGTCTCAT PGAATGAGTCTCTTGGCTCAGATTAGATATATTCACTGTATCTGCCGAATAGACTTTGCCTGGTAGCATTAACGTTCCTA

1040 1200 400 480 560 640 720 800 880 960 TCGCATCGAAGCTATCAAACCATGCACACCTTTCCAGCTTGACATGATCGACTGCAATGCTTTGGATAAGCAGTCTGCTA SCTTCGTTTTGTAGTCATGGAGATAGTCCCCTCAATAGCTCTTACGAGCAACTCTTCCATCTCTATGGTCTGGATTCGAG **ACCCCAGCCTTGCGAGCCTTTGCCTTCACCTCGGACTCTGGAAAGACTTCTCAAGTCATCCTAAAAGATAGCTTTGTCTT** CCCAACCCAACTACAACAGCAGCAGCATCGTATCACATTCCCTCTTTCACAGAAAGCACTATCCAATTCTGCCATCTGCCG TCGGCCATGCGGTGTATGATGTCCCAACCGACATTGACATCTCTCGTTTCGCGCTTGCGTGGAAGGAGGAGTCGTCAACCAA CTCATGGATGTGCTGGTCTTCTTCGAGCTCCCCAGATGAAGTGGTTCGGGATGAAGCTGCCGCTGCTGCTGCATCGGGGCCAC GCTGCAACCGCTTCGTTCTACTTGAAGACATGCAGACGAAGAAATGTCAGCTGGTTTTGGACCTTCAGTCATGCATTGGTA TACTGCACTCTCAATACTCCTCTCGCGCTACACTCACTCTGACGAGGCCTTGTTTGGTGCGGTAACTGAGCAATCTCTAC CATITIGACAAACACTATCTIGCAGAIGGIACGIACCAAACAGTIGCACCCCTICGIGIACACIGCCAAICAAAICTICGI SMSCEDNA GAVTEQ > SVFPH 3 吆 O L V ပ ᆸ Д S V V Д T V A P ഷ н CTPFQLDM SSPDEVV DTDSQSV ტ S × H L N × Д ෆ ы T O F V L L ഗ Д H ß ⋈

1440 1520 1680 1840 1920 1600 1760 2000 2080 2240 2400 2160 2320 2480 SCATCAGATGTCATGGATGCAATCTCTTACGATGATCGCCTTGGTCATCTCGCCCCATTTGGCCTTCGCGACATCCG CAACACTGGTGATAATGGCTCTGCCGCCTGCGATTTCCAAACTGTTTTACTCGTCACCGATGGCAGCCACGTAAACAATG GTATCAACGGTTTCCTCCAACAGATAACAGAGTCAAGCCATTTCATGCCTTGCAACAACAGCGTGCCCTCCTTCTGCACTGT CAGATGGAAAGTAGCGGAGCTCTGCTGGTTGCCTACTATGACCACAATGTTATCGATTCGCTTCAGACAACGCGTCTGCT AGTATGACAGAGCAGAGATTGAGAGTTGGAACTCGCAACCGTTAGAGGTACAGGATACCCTGATCCACCATGAGATGTTG AAAGCTGTTTCTCATTCCCCCACCAAAACGGCCATCCAAGCGTGGGATGGAGACTGGACCTATTCCGAGCTCGACAATGT TTCGTCAAGACTCGCTGTCCATATCAAGTCACTTGGCCTTAGAGCTCAGCAAGCCATTATTCCAGTCTACTTTGAGAAGT CGAAATGGGTCATTGCTTCAATGCTGGCTGTTCTCAAGTCTGGTAATGCTTTCACTCTAATTGATCCCAATGATCCACCA GCTCGAACTGCCCAGGTCGTCACGCAGACTCGGGCGACTGTAGCGCTTACTTCCAAGCTACACGCGAGACTGTACAGAA GCTTGTAGGCCGTTGCGTTGTGGTTGATGACGAGCTTCTGCAATCAGTTTTCTGCCAGCGACGATTTCTCAAGTCTGACCA AATCGCAAGACTTGGCCTACGTGATCTTCACTTCTGGTAGCACGGGCGACCCGAAAGGCATCATGATTGAACACCGGAGCG CTTTGGCGCATGTCTTCTCGAGATTATGACTACTCTCATCAACGGTGGCTGCGTTTGTATTCCCTCCGACGATGATCGTA TGAACAGTATCCCGTCCTTCATCAACCGATACAACGTTAATTGGATGGCGACACCTTCGTACATGGGAACCTTTTCA **ACAGCAGTTTGGTCATCTGATCAAGTGTTTTGCAAAGTCCTCTAGACCTGAGCTCTATGGCTGAGGTCAACTTGATGACTG** TTCTCATCATGTGCACTCAAGTTCGGCGCGCGTCTCTTGGCATCAACTCTGATACTCGTGCCCTACAATTTTGGAACCCATGC LLVTDGSHV ტ AIIPVY മ ĸ SDTRALO T V A L T S K L H GDWTY ᄓ ⊣ Z Ω > Ø Ø ഗ ט SOPLEV Д M M M Ø ტ D M SHR Ø ΤV P L D ტ ద Ø LEIMTTI Ø Ø SIGI ڻ ت × Ø ď ᄓ Н ഗ Ø 跘 N M О О SPTKT H A L L V × AQVVTQ ഗ ᆸ > Σ > ಬ > ט ტ

PROVED O.G. FIG.
BY CLASS SUBCLASS

2640 2560 2720 2800 2880 2960 3040 3520 3600 3200 3280 3360 3440 3680 CCTGAAGACGTTCCTGGCCTTGCGACATTGGTACTTGTTGGGGAGCAGATGTCATCTTCAGTCAACGCAATCTGGGCCCCC CAAGCTCCAACTCTTGAACGGGTACGGACAGAGTGGAAGTTCCTCAATTTTGTTTTGCCTCCAATATGTCAACTGAGCCCA **ACAACATGGGCAGAGCAGTCGGAGCTCATTCATGGGTCATTGACCCGAACGATATAAACCGACTAGTTCCGATTGGAGCT** CACAGACATTCCAAGCTGGTATCCAGCGAACACGTTTCCTGATGGGGCAAAACTCTACAGGACAGGAGATCTTGCAAGAT ATGATGCTACCAAAGCTATCAACATAAAGCTGGAGCAGGTATTGCCTCGACACTCTATCCCCTCATTCTACATCTGCATG ATGCCTCCGATGGGTCCATCGTTTGCCTTGGGCGCATAGACTCGCAGGTCAAGATCCGGGGGACAGCGTGTTGAGCTGGGT GCCATTGAGACCCATCTCCGACAGCAGATGCCAGACGACTTGACTATTGTGGTAGAAGCTACCAAGCGATCCCAATCTGC CAACAGCACATCCTTAATTGCATTCCTAATAGGGTCTTCTTACTTCGGAAATAGACCCTCGGATGCCCACATTCTGGACC CTGGAGCTTCCACGTACTGCCACCGGGAAGATAGATAGGAGGCGACTACGAATCATGGGCAAAGACATCTTGGACAAGCA GACCCAAGGGGCCATTGTTCAACAAGCACCCGCTCCTATCCCTGTTTTCGCAGACACAGCAGCAAAGCTCCACAGTATCT GGGTACAGAGTTTGGGTATCGATCCAGCCACGGTCAATGTTGGGGCAACTTTCTTCGAACTCGGAGGAAACTCTATCACT GCTATCAAGATGGTGAACATGGCGAGGTCCGTTGGTATGGACCTCAAGGTCTCTAACATCTACCAGCACCCGACGCTTGC AGTCTTATTCACAAGGCCGACTATGGTTCCTGGATCAGTTGGACGTTGGCAGTCTGTGGTATCTGATTCCATATGCTGTG GGGAATTTCCGCGGTCGTCAAGGGTGATCCTCTGTCCTACACTCTCATCCCCAAGTCAACTCATGAGGGACCTGTTGAGC RLRIMGKDILDK T X LKVSNIY д LTIVVEA Z D Y I V P ഗ ᆸ V V K G D P L S Y T L I P K EQVLPRH ß ტ ტ Ŀ L D V ڻ ص > വ œ വ വ × 24 ETHLRQQMPDD ЪР Ö ELPRTATGKID Ø Н S ტ വ ပ G A Z ∧ I R L Ω ტ ტ ഗ

Fig. 10



3840 3760 3920 4000 4080 4240 4320 4400 4480 4560 4640 4720 4160 4800 SACATTTGAAGACCAGGATGGTGTCGGTGTACAAATTGTTCACGAGAAGCTTTCTGAGGAGATGAAGGTCATTGATCTCT AGAATGCGCGCGCCTGTCAATGTCGACGCGTTACGTCGGGCTCTTGCAGCGCTTTGAACAGCGACACGAGACTCTTAGAAC CTCCTCTACCTATCCAGTACAGCGACTTTGCAAAATGGCAGAAGGACCAATTCATAGAGCAGGAGAAGCAACTCAACTAC AGGTTGCGTACATGTTACCATCGACGGGGAGCTCTACCAGTCCCTTCGAGCCTTCTGCAACGAACAACAACAACGACCTCTT TCGTCGTTCTTCTAGCTGCGTTCCGTGCCGCTCATTATCGTCTCACAGCTGTTGAAGACGCTGTCATTGGTACACCAATT SCGAATCGCAACCGACCTGAACTGGAGGATATCATCGGCTGCTTTGTCAATACGCAGTGTATGCGAATCAACATAGATCA TCACGATACCTTTGGGACTTTGATCAACCAAGTCAAGGCTACGACGACGAGCAGTTTCGAGAACGAGGATATTCCGTTTG TCACAGAAGGACCTTGGAAGATTCAAGTTCCAGGGTCTCGAGTCCGTACCTGTGCCTAGCAAAGCGTACACTCGATTTGA CATGGAGTTCCATCTGTTTCAAGAAACCGACAGCCTTAAAGGTAGCGTCAACTTTGCCGATGAGCTGTTCAAAATGGAGA AGCGCGTTGTATCAGCACTACAGCCTGGATCCAGAGATCTGTCAAGCACCACCTCTCGCACAACTCATTTTGCAGTGCAC D D Σ ᅜ Ŋ FARPALL TIWMHII O RDLSSTPLA 团 T A V Ø L ద > > U L Ø S L LIRLGEDDHIL S L K Q L K D S S P A K I LNQLY മ ഥ Ø ტ വ Д ద V V S A L Q വ ഥ Ø X Ŏ Е FVULLA 24 Ы ᆸ H ×



4880 4960 5040 5200 5520 5120 5280 5360 5440 5600 5680 5760 CTGTTGAAAATGTCGTCAGAGTATTCTTTGAGATTCTGAGAAACGGGCTTCAAAGTTCGCGGACACAGTCTCAATACTT CTTGGCTGATGTCTTCCAGACCCAAGTCTCTGCTTACCCCGATAGTCTGGCTGTGGTGGACTCCTCGTGCCGATTGACCT **ACACCGAGTTGGATCGCCAGTCTGATATTCTCGCTGGATGGCTTCGTCGACGGTCAATGCCTGCAGAGACGCTTGTCGCA** TGTACGATCGCCCTCGGCGAGAGTTCAGGATATACTTTCTGGACTTTCTGGGCCTACCATTGTTTTGATTGGCCATGATA CCTTTGACTGATGGCATTGTGACTCTTGAAAATTGGATGTTCTCAACGTCAAACATGTCGACTATCCCCGAGAATCGAG GTATTTGCCCCACGGTCATGTGAGACAATTGTCGCGTTCTTTGGTGTGTTGAAGGCGAACTTGGCCTATCTTCCTCTCGA TTTGAAGTCATCGAGCACGACAGCACAAAGCCCTCAGCCACGAGTCTCGCATACGTGCTGTATACCTCAGGATCCACTGG CCGACCAAAAGGCGTCATGATTGAGCACCGTGTCATTATTCGAACAGTCACAAGTGGCTGTATACCCAACTATCCTTCGG **ACACTTGTTTGCGTTGACTACATGACAACCCTCGACGCTAGAGCACTCAAGGATGTGTTTTTCCGAGAGCATGTCAACGC** CAGCGCCTCCCGATATCGAGGTTACTAACGTCGAGTTTGTTCGTATCCGGGATGCGCTGAATGACAGCAATGCAGATGGC AAACGAGGATGGCTCACATGGCGACCATTGCGTTTGACGGCGCATCGTACGAGATCTACAGCGCCCTTTTGTTCGGAAGG GGCAAGTCATGTCACCAGCTCTTCTCAAGATGTACCTCTCCGAGTCCCGAGAAGGCTCTCGAGAACCTTGATGTTCTTCT LLFGR T D G I V T L E K L D V L N V K H V D Y P GVLKANLAY SLAYVLYT Ι > G P F V R I R D SY ⊣ ഗ T RVQDILSGL R V F D G A TOVSAYPD ᄄ Ø ഥ PRSCETIV > Ø H E V T N T R M A H M

TACGGCCCAACAGAGAATGGAGTCATGAGTACAATCTATCCCATTGACTCGACTGAGTCGTTCATCAATGGAGTCCCAAT

TAPDALDAQGLY

ß

闰

ᆮ

D

д

×

M V

ტ

Z

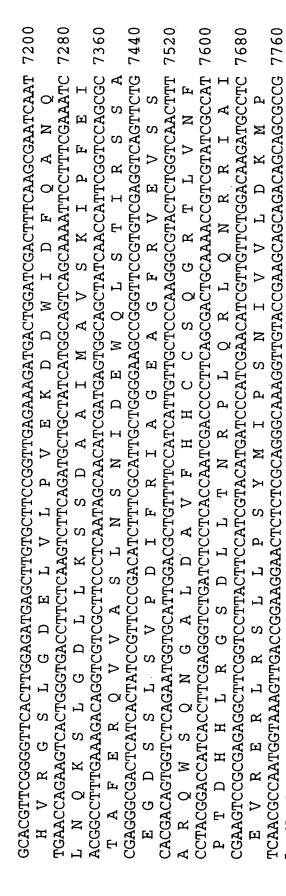
TCTTGGTGGTGACAGATTCGACGGCCCCCAGATGCTCTCGATGCGCAGGGACTTTATCAAGGGGGTCCAGTGTTACAATGGT

5840

5920

0009 6080 6240 6400 6560 6640 6720 6800 AATGACCAGACAGTGAAGGCGTATCGCACTGGCGATCGAGTGCGGTACAGGATTGGAGATGGCCTCATCGAGTTCTTCGG 6160 6480 6880 7040 7120 **ACGTATGGACACCCAGTTCAAGATTCGTGGCAATCGTATCGAATCAGCTGAGATTGAAGCGGCCCTTCTGCGCGCCGACTCCT** CTGGTGGAACATGTTGAGATCCTGCCAAAGAACATGGAAGCTGTGAATGAGCTCAGTGCGTATCGATATGCCGCTGTTGT PTGTTGTCACTGGCGATGGTCTTGCGCGGGGCTACAGTGACAAAGCCCTTGACGAGAACCGTTTTTGTGCACATTACTGTC CGACATTGGCGAAATTGACCCGTCGACGATTGGTAGCGACTTCAAGGGTTGGACATCAATGTATGATGGAAGTCAAATCG ATTGGAACAGGTAGCGGCATGATCCTCTTCAACCTTGACAGCAGGCTTGAGAGTTACGTTGGTCTTGAACCATCCAGATC AGCAGCTGCATTTGTCAACAAAGCTACCGAGTCTATACCATCGCTTGCTGGAAAAGCCAAGGTTCAGGTTGGAACAGCTA CACCAACGAGCACTTCCTTGCTGCCAGGGCTATCCACACACTGGGGAAGAATGCAACGAAGGACGATGTTCGACAGAAAA TGGCAGAATTGGAGGACATGGAGGAGGAGTTGCTTGTTGAACCTGCTTTCTTCACCTCGTTGAAAGACAGGTTTCCAGGT PGGACGAGCTCTGAACAACTCAGGAGCGTATGTCGTGGATCCTGAGCAACAGCTTGTTGGCATTGGTGTGTGATGGGAGGG CCGTCCGAGATGCTGCTGTCGTCCTTCAGCAGAATGAGGATCAAGCGCCTGAGATCTTGGGGGTTTGTTGTTGCTGATCAT GATCATTCTGAGAATGACAAGGGACAATCTGCCAATCAAGTCGAAGGATGGCAAGACCATTTCGAGAGTGGCATGTATTC **ACTTCGATGAGATGCACGAGTGGCTTGGTGAGACTACCCGGACACTCCATGACAATCGCTCTCTAGGCAATGTCCTTGAA** CAGATATTGGTCAAGTCGATGACTTACACCCTGACCTCGTGGTTCTCAACTCAGTCATTCAGTATTTCCGGTCTTCGGAG G Y S D K A L D E N R F V H I T V SLGNVL ტ FLAARAIHTLGKNATKDDVR GKAKVQV ෆ SANQVEGWQDH Ø п ഗ ETTRTLHDN ELLVEPAFFT ⊣ Z Q N E D Q A P × ט SLA ద F R > 团 FVNKATESIP S T I G S D 臼 K I R G N R × Z ტ Ø RDAAVVL n D EIDP ტ 臼 Q V Q ⊱ ტ

Fig. 1.F



7920 8240 8320 8000 8080 8160 TCCGTATCACTGTCAAGGATGTCTTTGACCATCCTGTATTTGCGGATCTAGCATCTGTCATCCGTCAAGGGCTGGGTTTG CAACAACCCGTTTCTGATGGTCAGGGACAAGACAGATCTGCCCACATGGCACCCGGTACCGAGACTGAAGCTATACTCTG CTACTAAACTCGCTGTGCGCATCGGACATCGACTTGACACGACTGTTTCGGTGAAGGATGTTTTCGATCATCCTGTACTC TTCCAACTTGCAATTGCATTGGATAACTTGGTTCAATCCAAGACCAATGAGATAGTTGGAGGTAGAGAAATGGCTGAATA TACCGATCACTTCTTCAATCTCGGTGGACACTCTCTTGGCCACGAAGCTCATTTCTCGTATCGACCAACGAÇTCAAGG TGATGAGTTTGCAAAGGTTCTGGGGTTCCAAGTCGGGATTACAGACAATTTCTTTGATCTTGGTGGTCATTCACTCATGG VKDVFDHPVL ĸ T K L I S R I D Ŋ H ტ > 吆 > ß Н Ø ы ഗ ᆸ Z Z K T N H P V F A D T D SLLLA r H œ ŏ r V Д F N L G G H Ø G F ტ N ტ Ø > Ы G Д P V S D IA × > ø

7840

ტ

> ≥

д

>

>

×

Ø

吆

E L S R

ĸ

叱

Д

>

×

ტ

TTACCGACATTTCCCATCAGTGAGGTCGAAGTCATTCTTTGCGAAGAAGCCACTGAGGTGTTTGGCATGAAGGTTGACAT

口

臼

>

闰

ഗ

7760

1g. 1g

8400 8800 8480 8560 8640 8720 8960 9040 8880 9120 9280 9440 9520 9200 9360 TTCGTGCCGTTCTACATCGACTTCCCCAGCACTTCCGAGCCTGATGCTGCAGGTCTAATCAAGGCTTGCGAGTCTCGGT AAATCATTCAAGACATATATCCGTCTACCCAGATGCAGAAGGCTTTCCTCTTCGATCACACAACTGCGCGCCCGAGACCT AAATCATCTTGACATCTTCAGAACAGTCTTTGCAGAGGCATCTGGAGAACTATACCAAGTGGTCTTGTCCTGTCTTGATC TGCCAATCCAAGTGATTGAGACAGAAGACAACATCAATACGGCGACAAATGAGTTTCTCGATGAGTTTTGCGAAAGAGCCA GTTCGTCTGGGACATCCGTTGATTCGTTTTACAATCAACAAACCAAGTCGATGCGTGTGATAATGAGAATATCGCA TGCCCTGTATGATGGTCTGAGTCTAGAGCATGTCGTGCGCAAACTTCACATGCTCTACAACGGGAGATCACTTTTGCCAC CACACCAATTCTCGCGGTACATGCAGTATACTGCTGACGGTCGCGAAAGTGGACATGGATTTTGGCGCGCGATGTGATTCAA AATACGCCCATGACAATATTGAGTGATGACACGGTTGTTGATGGAAATGATGCAACCTGCAAGGCGTTGCACCTATCAAA GATTGTCAATATTCCTTCACAGGTACTTCGAGGCAGCAGTAACATCATTACTCAAGCTACTGTGTTTAACGCAGCCTGCG GAATACCAGGACATTGTCGGGCCTTGTACCAACGCAGTTCCTGTTCGCGCTCATATAGAGTCGTCAGATTACAACTATA GCTGCACGACATCCAAGACCAGTACCTTCTCAGCTTGCCACACGAAACAATTGGCTTCTCAGATCTCAAGCGCAACTGTA CGTTAGTCTTGTCACGGGAATCTGACTCGAAAGACGTTGTCTTTGGACGCATCGTCTCTGGTCGTCAAGGCTTGCCTGTT CAGATTGGCCAGAAGCAATCACCAACTTCTCATGCTGCATCACATACCACAATTTCGAGTACCATCCCGAGAGTCAGTTC STQMQKAFLFDHTTARPR W R D V I A T V F N A TIIKQTKSMRVIM T V V D G N.D A T C K E F L D ᅜ 闰 口 Ή Ω ט Z SCCITTYHN × H SNIIT E D N I N T A T N QYTADGRES K L H Σ 臼 ტ оуглягрн LSLEHVVR C T N A V യ SQVLRG T V F A E ഥ T I L S D D ბ ტ TOWPEAITN Σ ы М ڻ ت ഗ I N A Д L · Y

APPROVED O.G. FIG.
BY CLASS SUBCLASS
DRAFTSMAN

0096 9680 PGCGGGTGAAGTTGAACCAGACGGAGCAGGACTGAAGGTTACTGTTATCGCGAAGACGCAGTTATTTGGTAGGAAGAGAG TAGAACATCTGTTGGAGGAAGTTTCCAAAACGTTTGAGGGTCTCAACTCTTCTTTGTAACGCACGGGTTGGTCTCAATCG TCGCGACAGAACAACCGATGTAGGTTTGTAATTCTTAATGACGTCTTTTGACTTTTTGGTTTTTACCATTCGGAGCAAATA EHILEEVSKTFEGINSSL GAGLKVTVI

10800 10080 10160 10240 10320 10400 10480 10560 10640 10720 10880 09601 11040 11120 11200 9840 9920 9760 **AATGCGACAAGGATTGGAACTATCCGAGTCAGCTTGATCTAGTCCCTAAACAGTAAATAGCTCGCGCTTCTTCGGATTTCG** ACGGGACACTCYTTCAACATCAACAAGGATCTGTCCAACAAGCTGCCTACCTTGTCAGTCCCAATGGGCCCACCAT TCGACGGAGTGAAGCAGTCCATGGGTAACATGATGTTTGAATGGCTCAAGTATCCTCTCATCCTTGGCTACGATGTCGCT CAAGCGAGGAAGAAGTCCCGACGAAGGCGCATTTCAAGAAGTTTGCATCATGCGAGAGCATTTGGCTGCTCGAATTCCAG AGCGTGTTACGTCCACCGATGCCAGCGTTTTGCCTCTGACTTTCGTCACGGCTGCATGTGCCTTGTTCCAAAAGGATCAA GTAAGCAGAACACTGGCAAATGTCAGATATTACACTTCAGAACTATTATTTTGACTATTATCTCACGTTGTCAGCTTTTCA TCGATCGAACACTATGATTGGTTCGCGTCTCTGACAGGACCATTTGTCCAATAATAGAAGTATAGATAAGATATGCGAGG **ATAAAAGGTATGACTCTTGATATGATCAAATTAGAAACAATACCTTGACAATATTGTGTTCCAACATTACACAACACTTGA** CGAAGTCAGATCTGCACCTGTTCCAACACCTGGTTCAGGAGAGTTGCTTATCAAGACACATGCTGTCGCCATCAATCCAG SGCGAGGTCATCAAGACGGGACCTGGTGTTAGTCGATTTAAAGAAGGCGATAGAGTTGTGGGTGCTACAGCAGGCATGGA CTGGCACTACAACTACCTCAAACCAAGTCAAAGCGCAGTGCAACAAGTCAAGTCAGACAGTCTTGGTTTTGGGGAGCGAGTACAAG CATGCTTGCTACGTTCGATCGAGTCAAAATTGAGATCTACAGGGTAACGCAGGAATCCAGAACAATTGACAAGGATTCA PCGTACGCGGTCTCGGCGCTTGTGCAGTTTTTGACTATCACAGCTCATCGGCCATAAACGATGTGGTATCTGCTTTCAAG SACAAGAAATGCGCAGGTGCTGTAGCTATTGGTCAAGGGTCACTGGCGAAATGCGTCGACATTGTCAAAAGCGTTCCGGG AGCCACCAGAATGTTGCGCAAGTTACCCTCTCAATGCCTGAGTCACAGCCAACAACCAAGATATCCATGATTCCGTTTG

Fig. 1

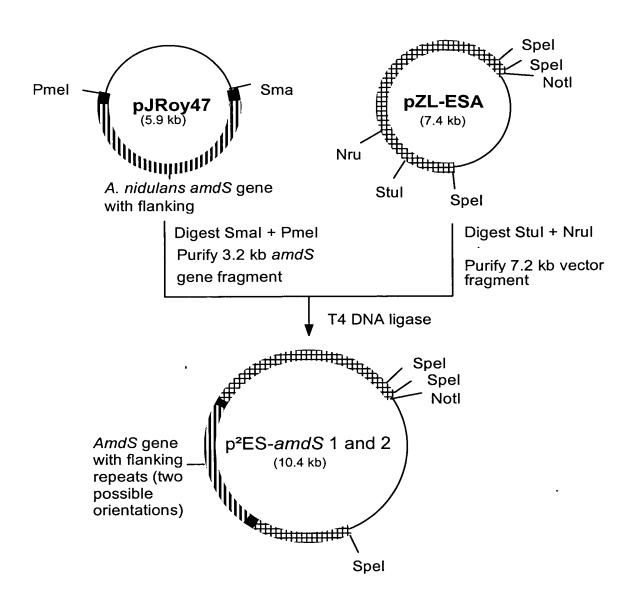


Fig. 2